

Figure 1

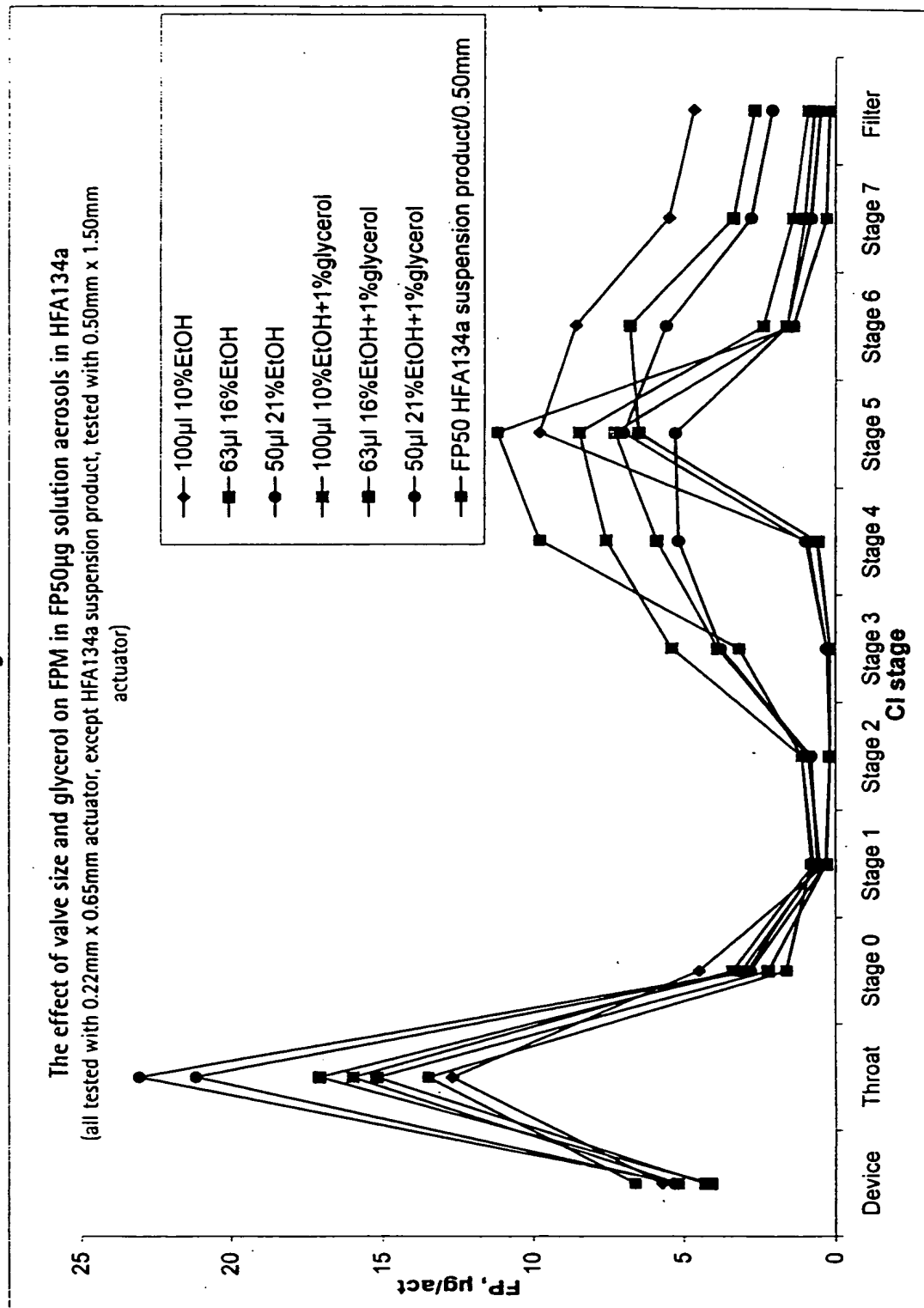


Figure 2

The effect of level of Ethanol on FPM in various FP/HFA134a solution aerosol formulation  
with no addition of glycerol (various valve sizes),  
(0.22mm x 0.65mm actuator, except HFA134a suspension product, tested with 0.50mm x 1.50mm actuator)

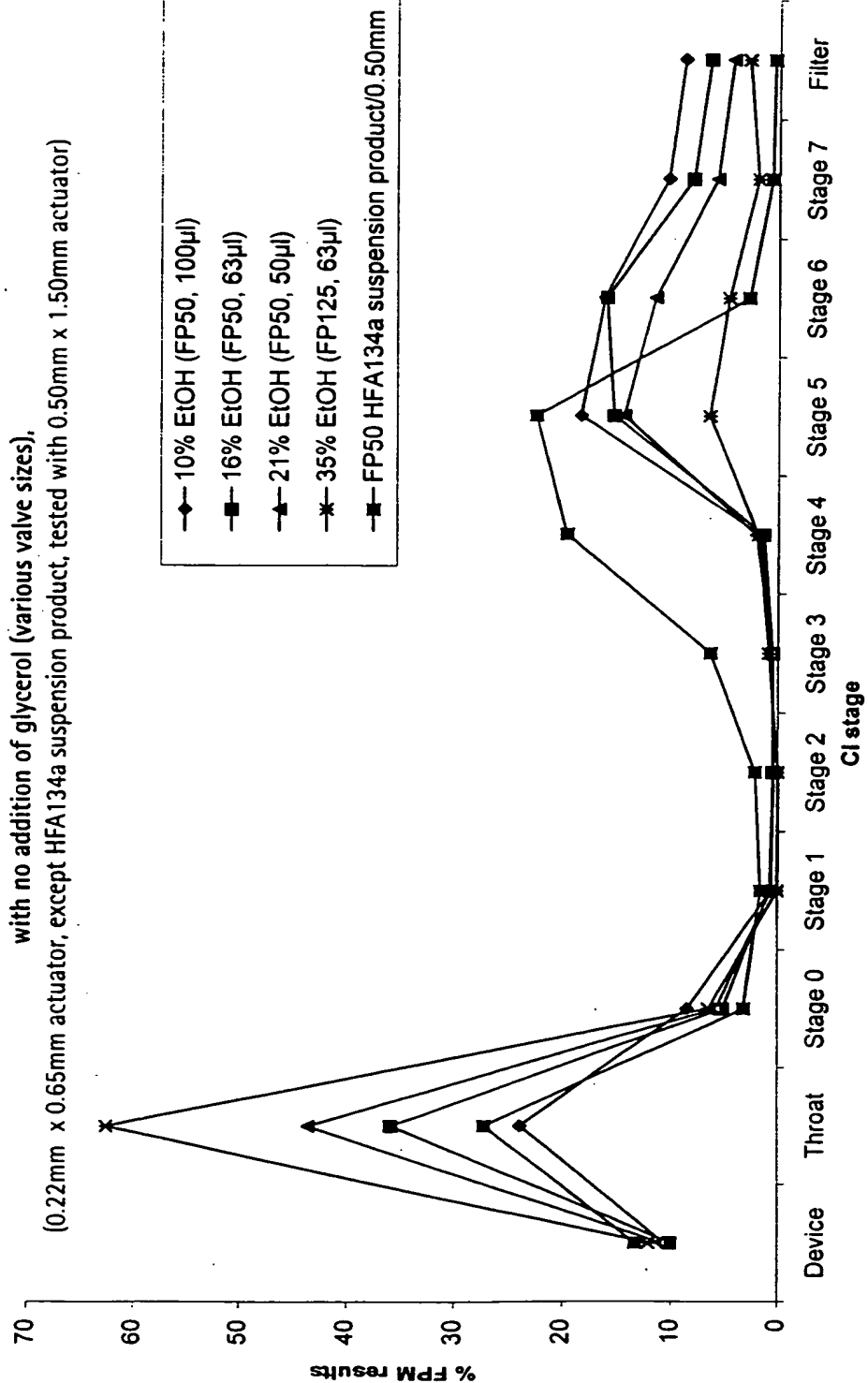


Figure 3

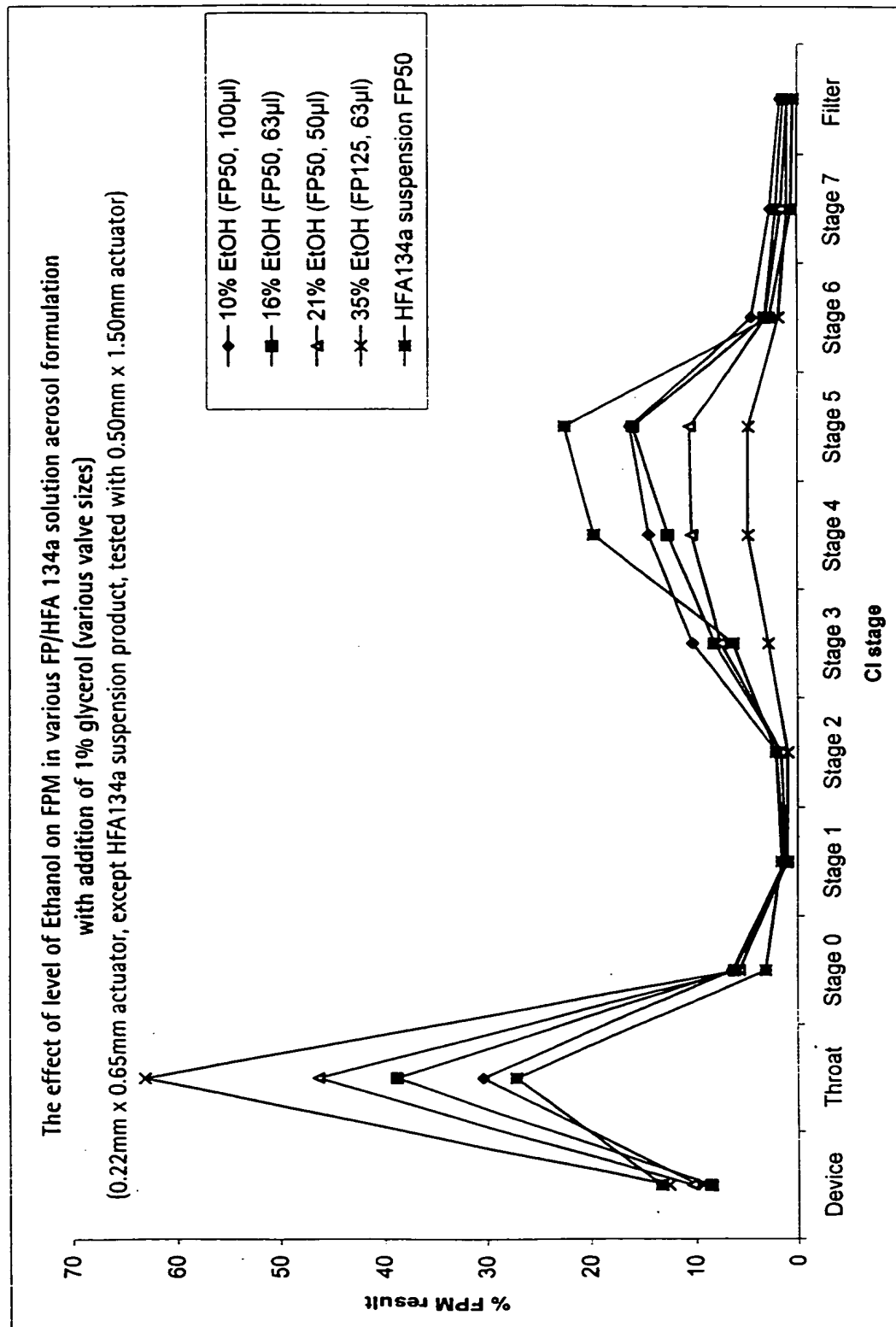


Figure 4

The effect of glycerol on FPM in FP/HFA134a 125µg solution aerosols  
containing 35% ethanol or 35% ethanol and 1% glycerol, 63µl valve  
(all tested with 0.22mm x 0.65mm actuator) - mean data

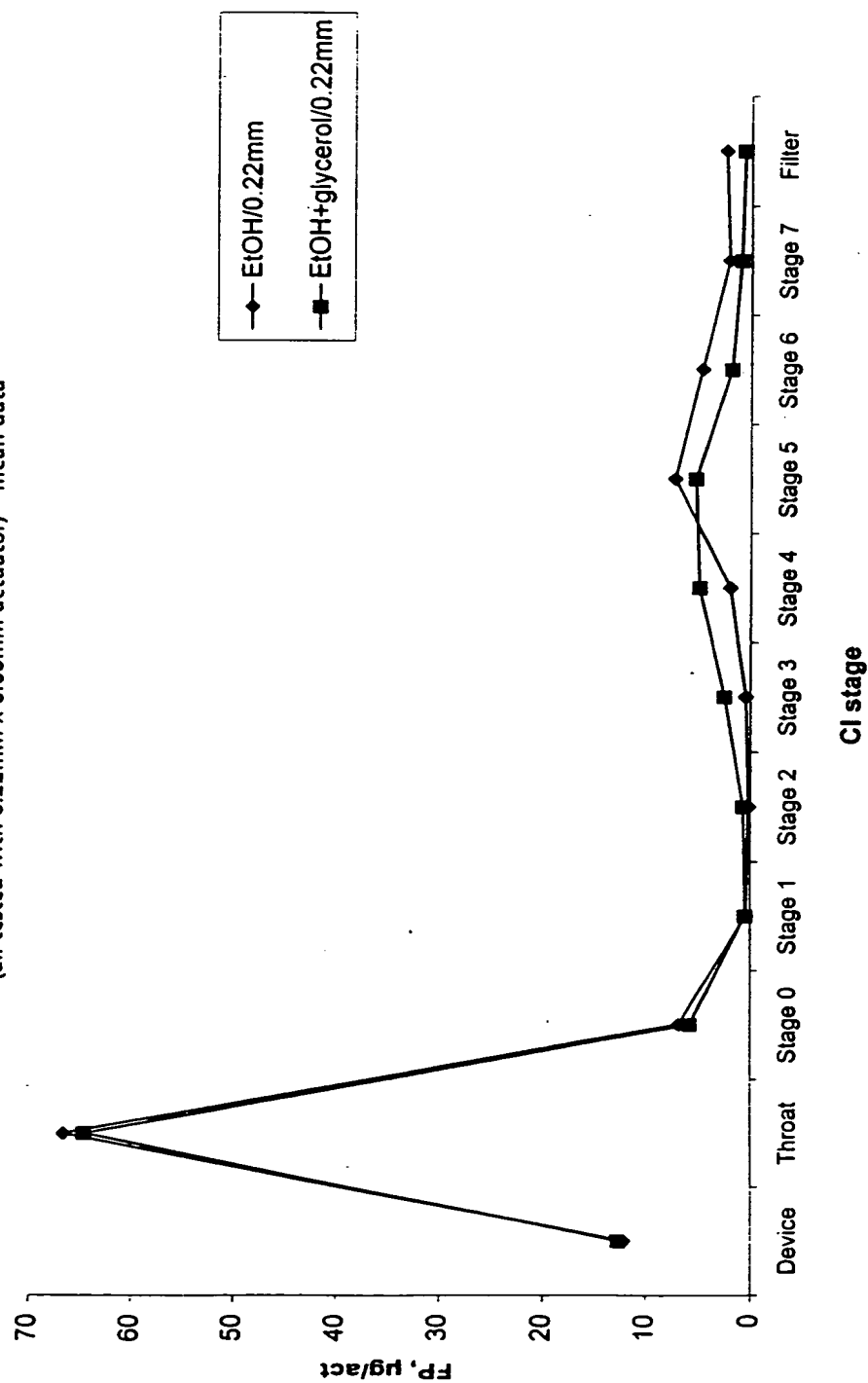


Figure 5

The effect of actuator dimensions on FPM and throat deposition in  
FP/HFA134a 50 $\mu$ g solution aerosols containing 16% ethanol, 63 $\mu$ l valve  
(0.50mm vs. 0.33mm vs. 0.22mm actuator)

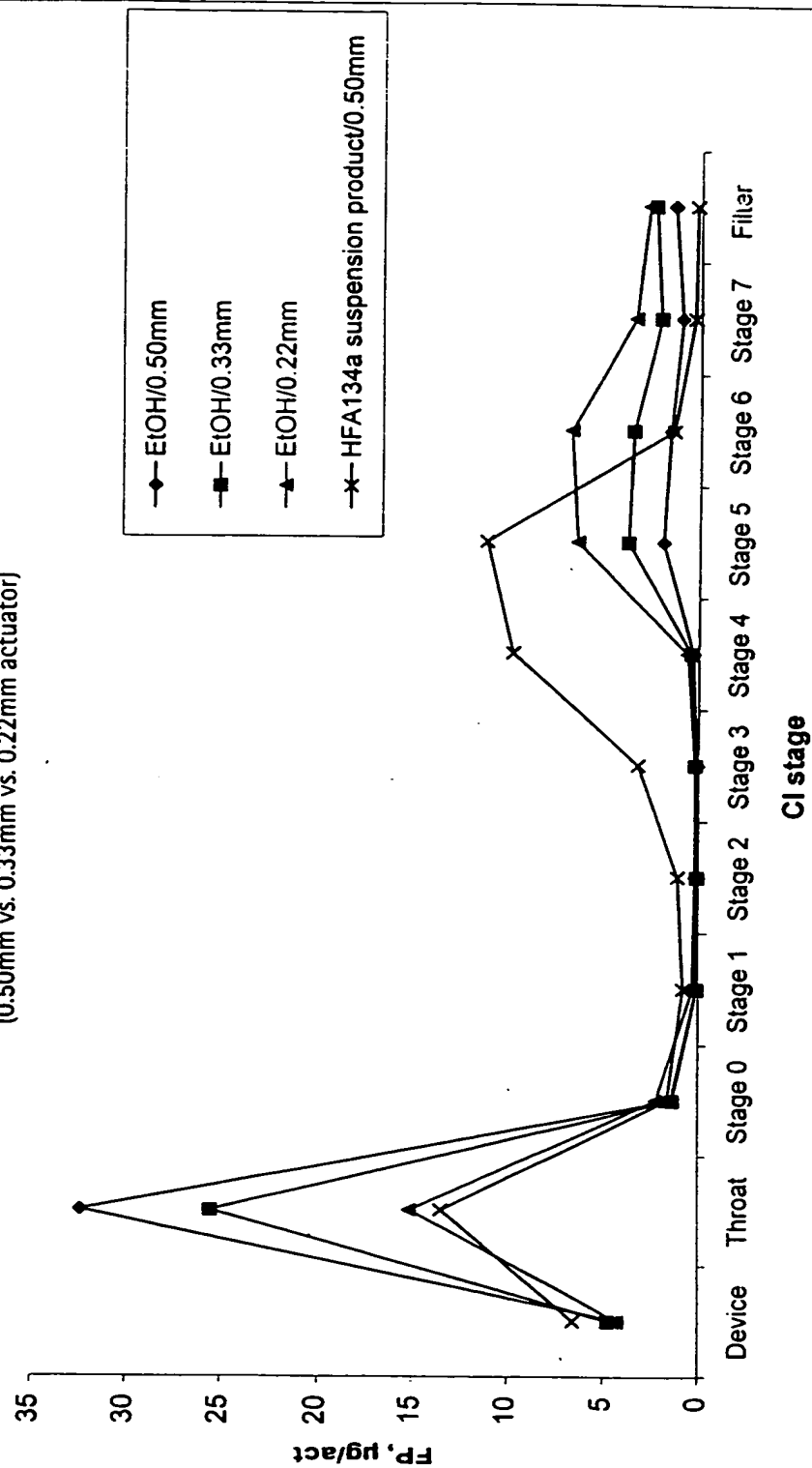
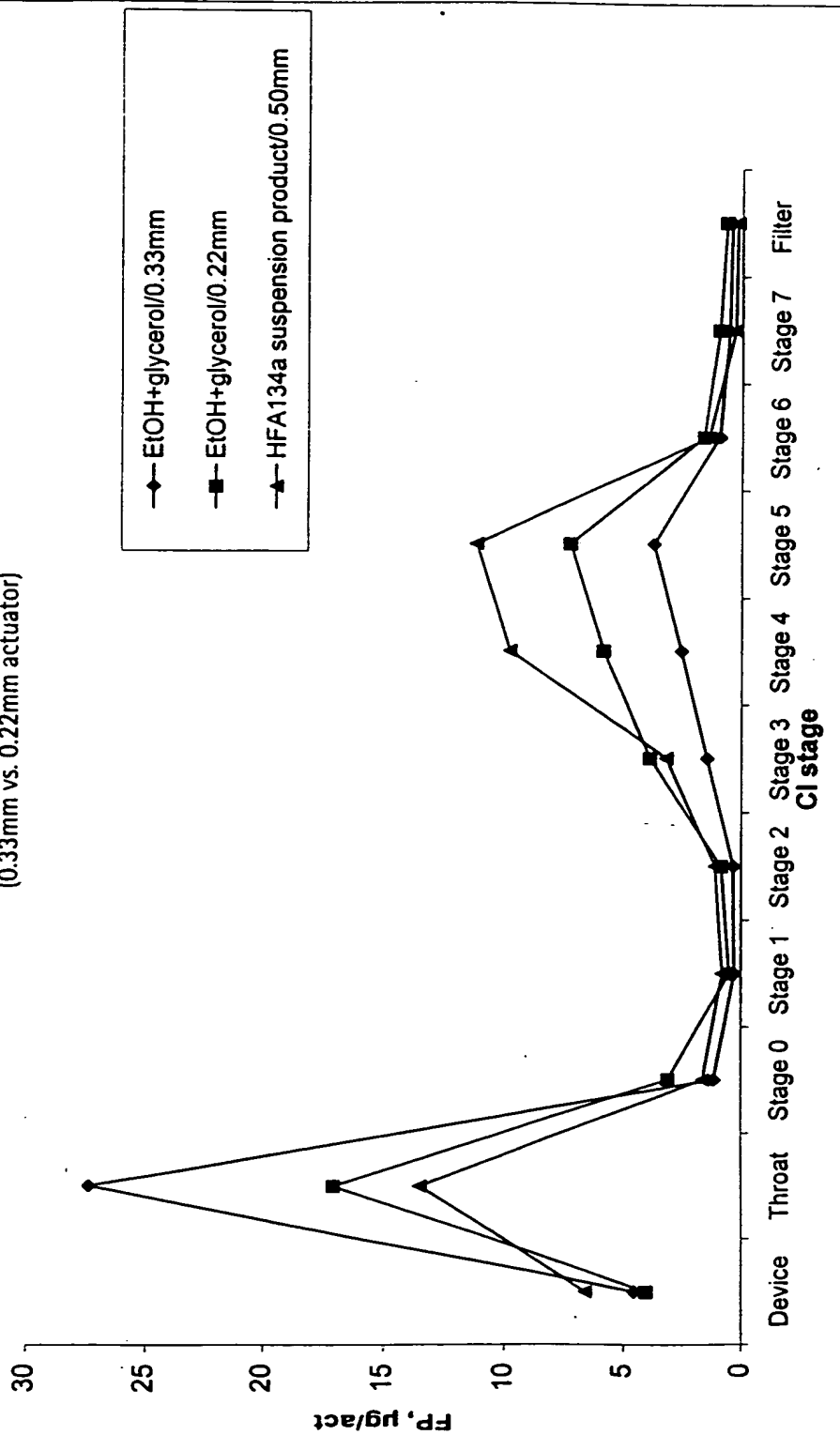


Figure 6

The effect of actuator dimensions on FPM and throat deposition in  
 FP/HFA134a 50µg solution aerosols containing 16% ethanol and 1% glycerol, 63µl valve  
 (0.33mm vs. 0.22mm actuator)



**Figure 7**

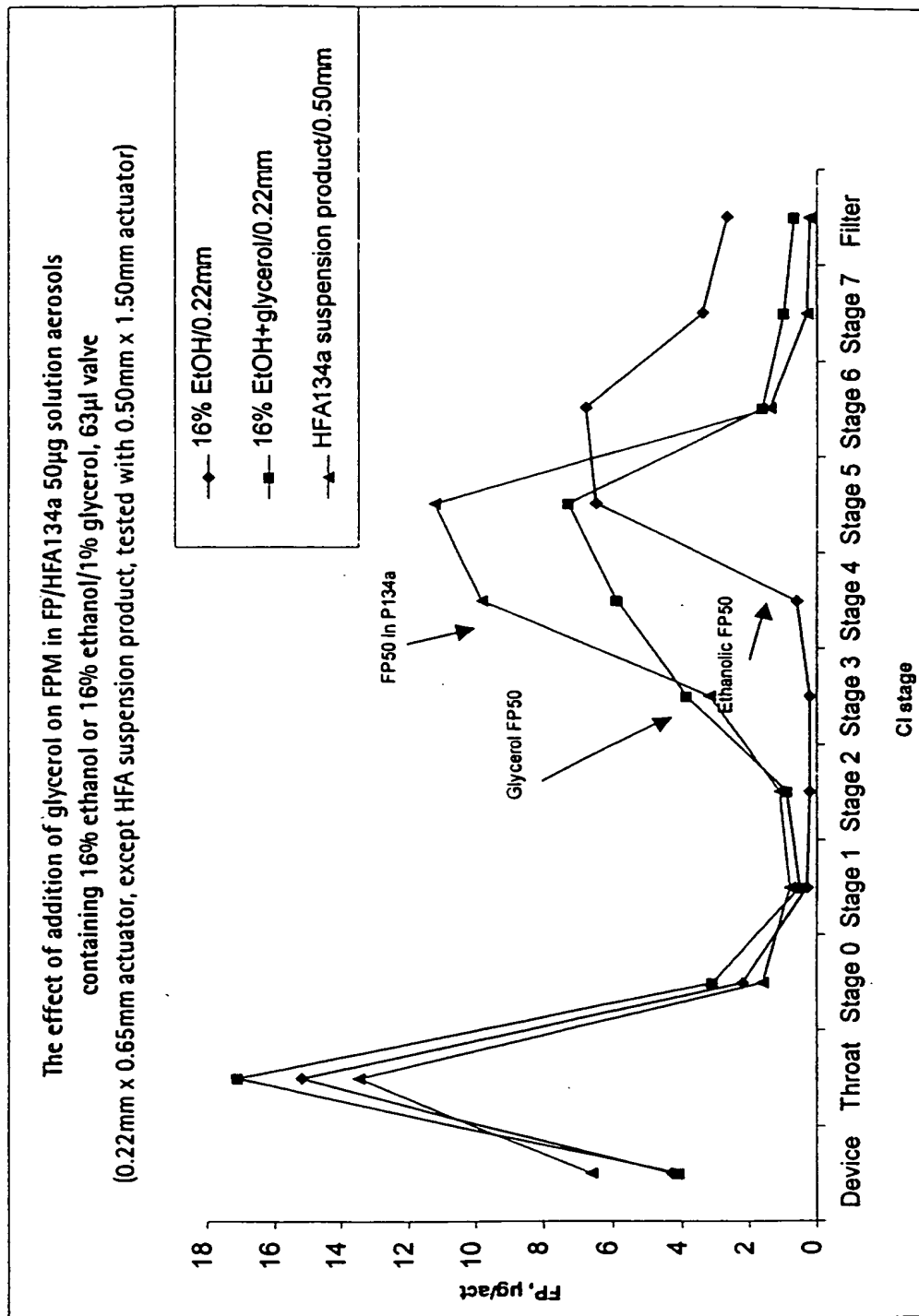
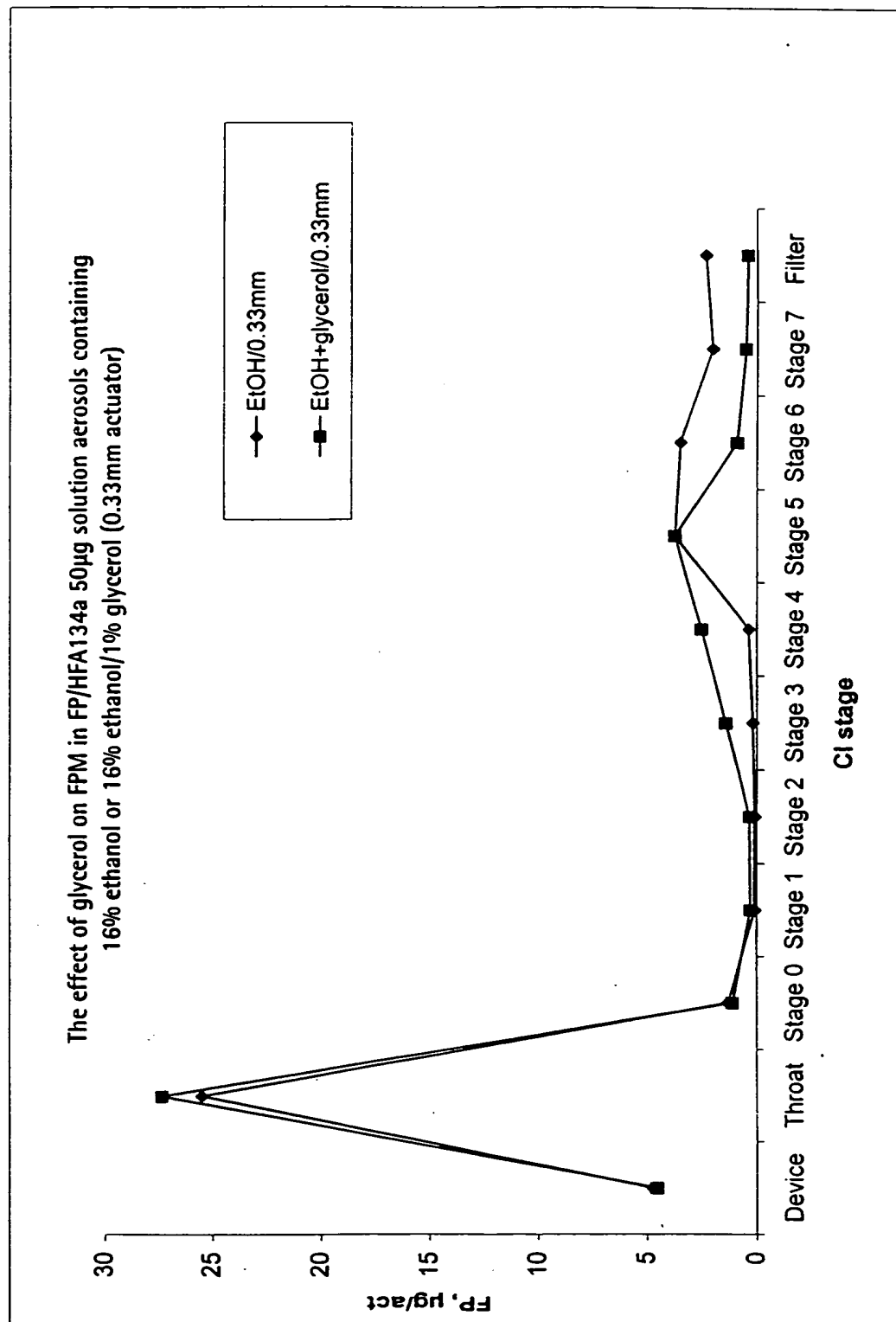


Figure 8





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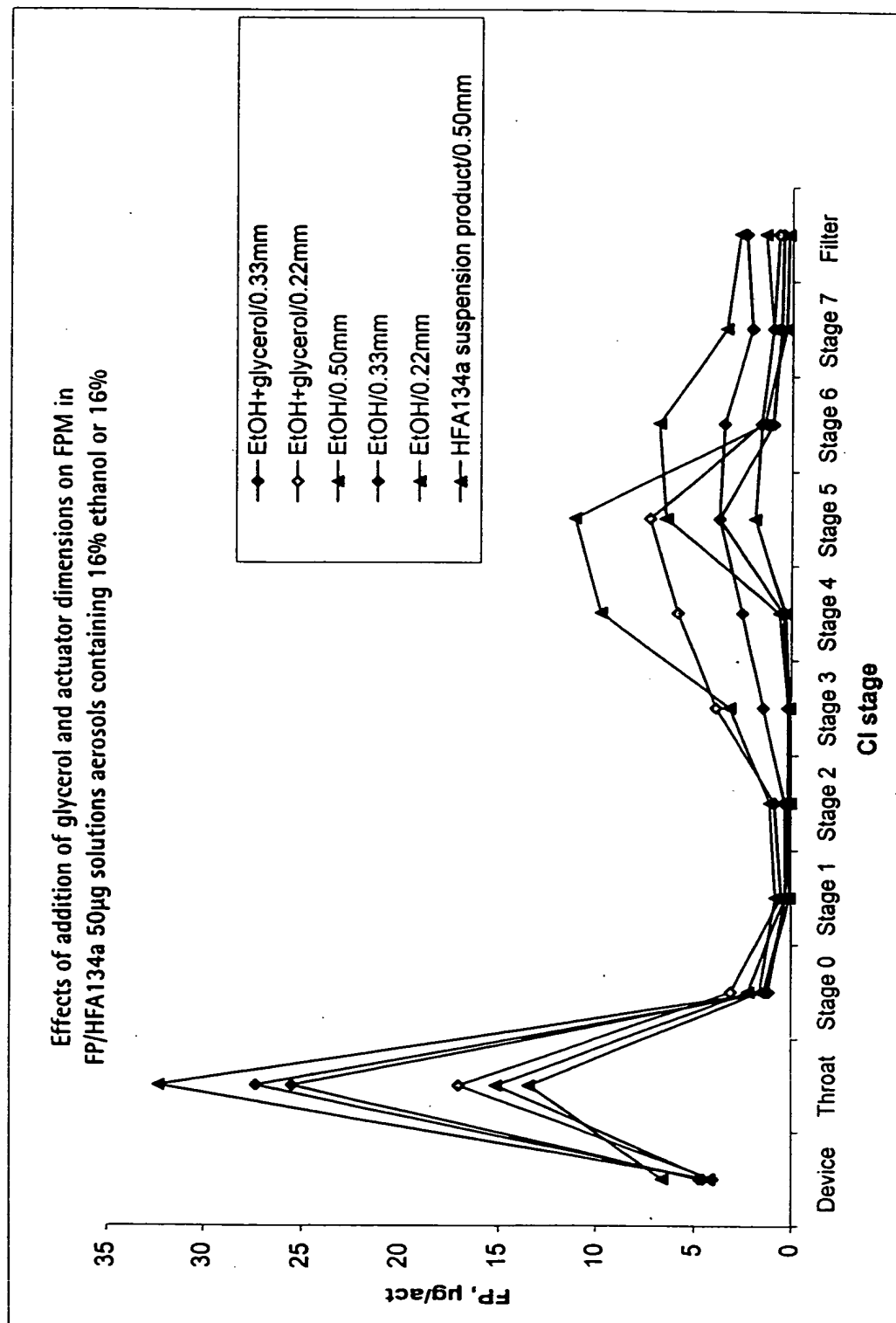


Figure 10

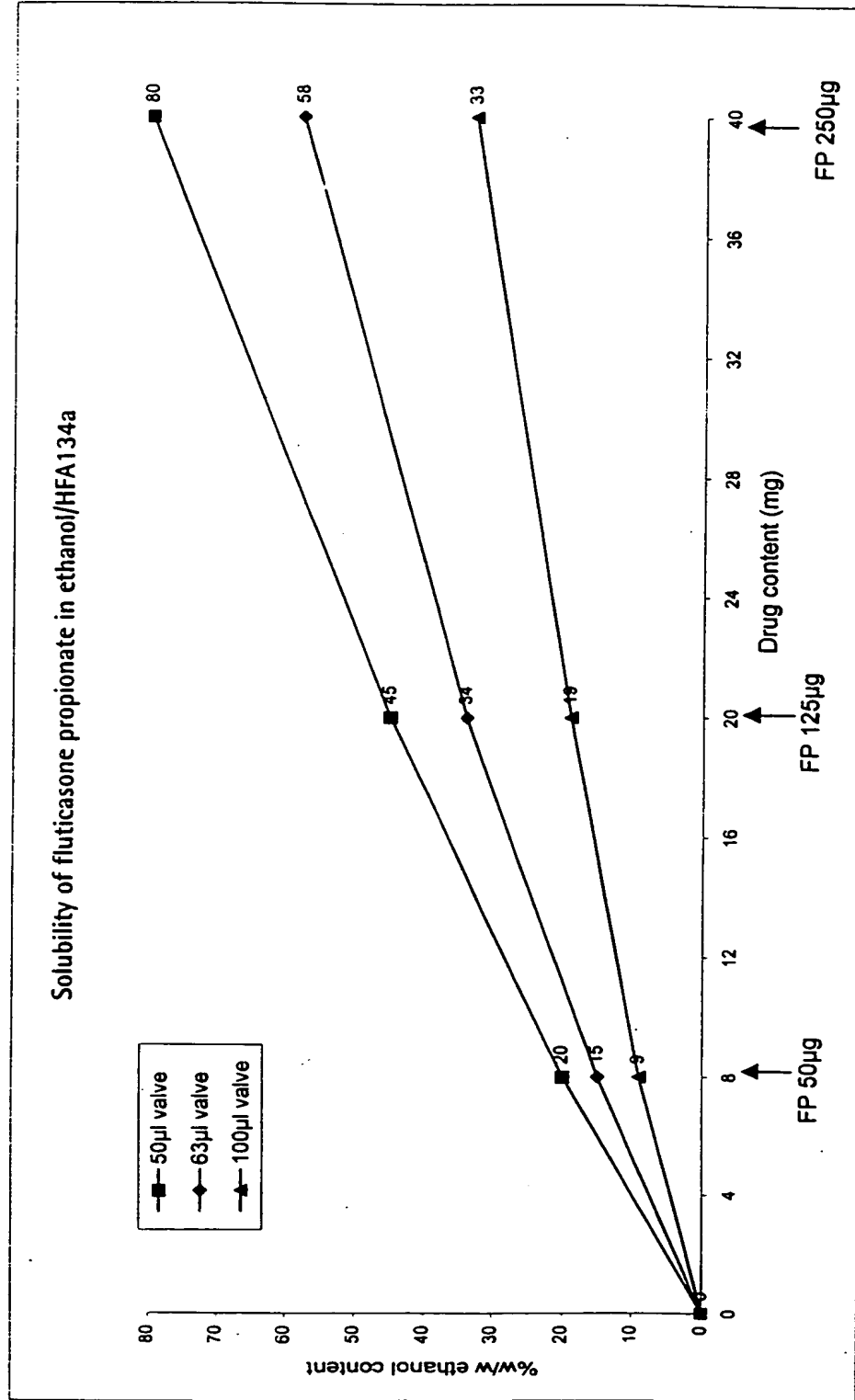


Figure 11

The effect of addition of glycerol on FPM in FP/HFA134a 50µg solution aerosols containing 10% ethanol or 10% ethanol/1% glycerol, 100µl valve (0.22mm x 0.65mm actuator, except HFA suspension product, tested with 0.50mm x 1.50mm actuator)

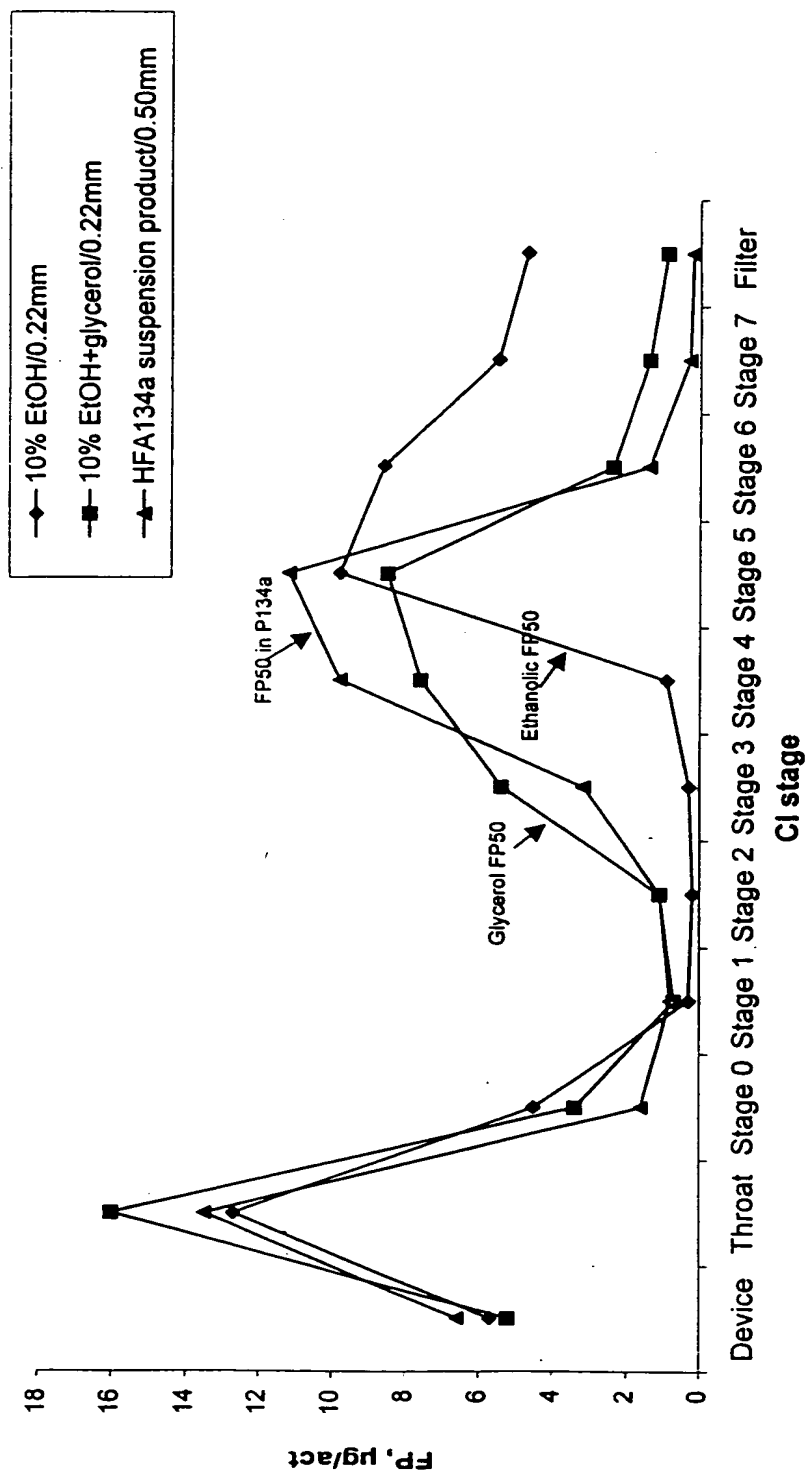


Figure 12

Effect of glycerol on MMAD of FP50 $\mu$ g solutions in HFA 134a-ethanol  
(100 $\mu$ l valve, 0.22mm x 0.65mm actuator)

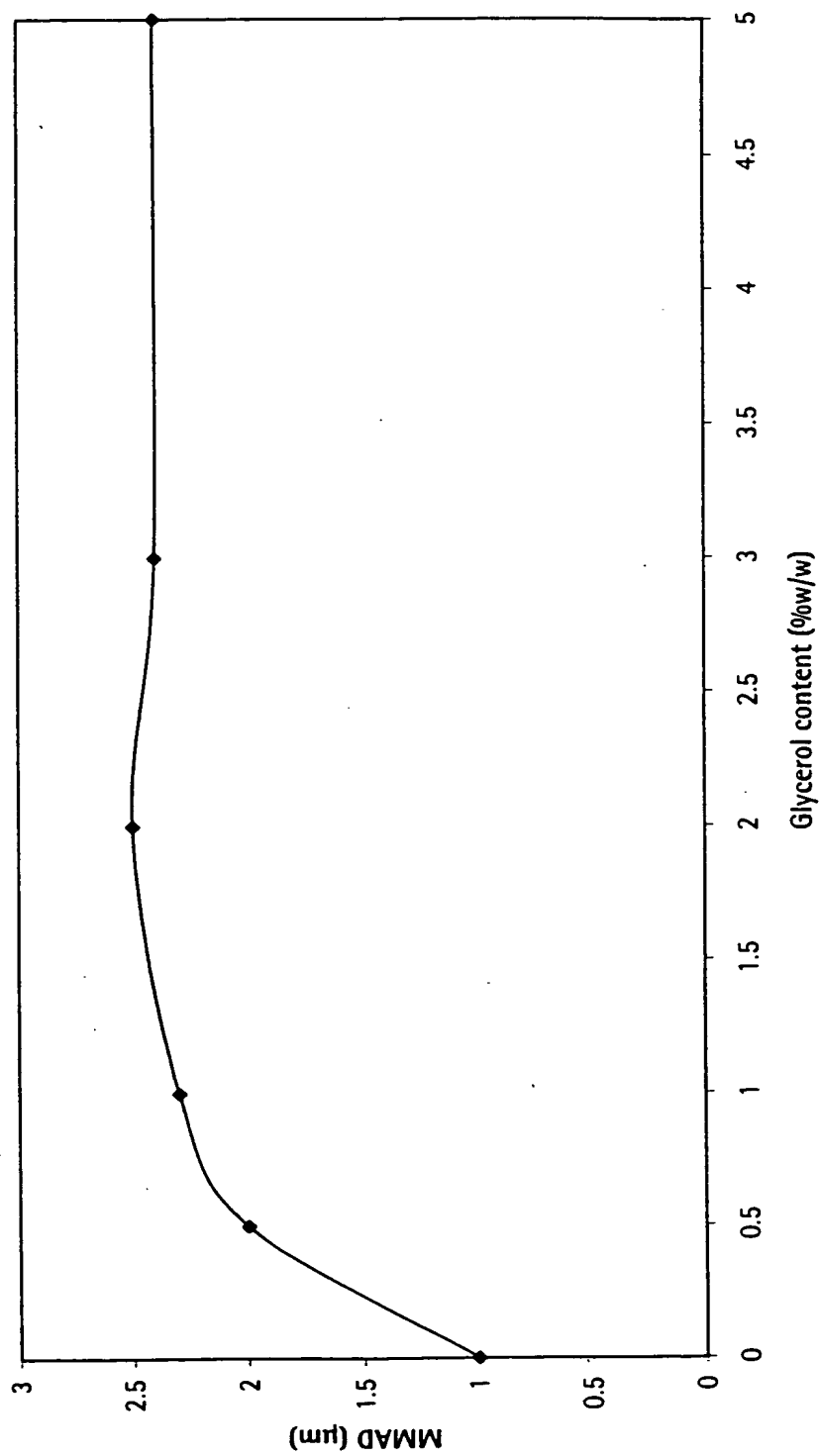


Figure 13

Effect of glycerol on throat deposition of FP50 $\mu$ g solutions in HFA 134a-ethanol  
(100 $\mu$ l valve, 0.22 x 0.65mm actuator)

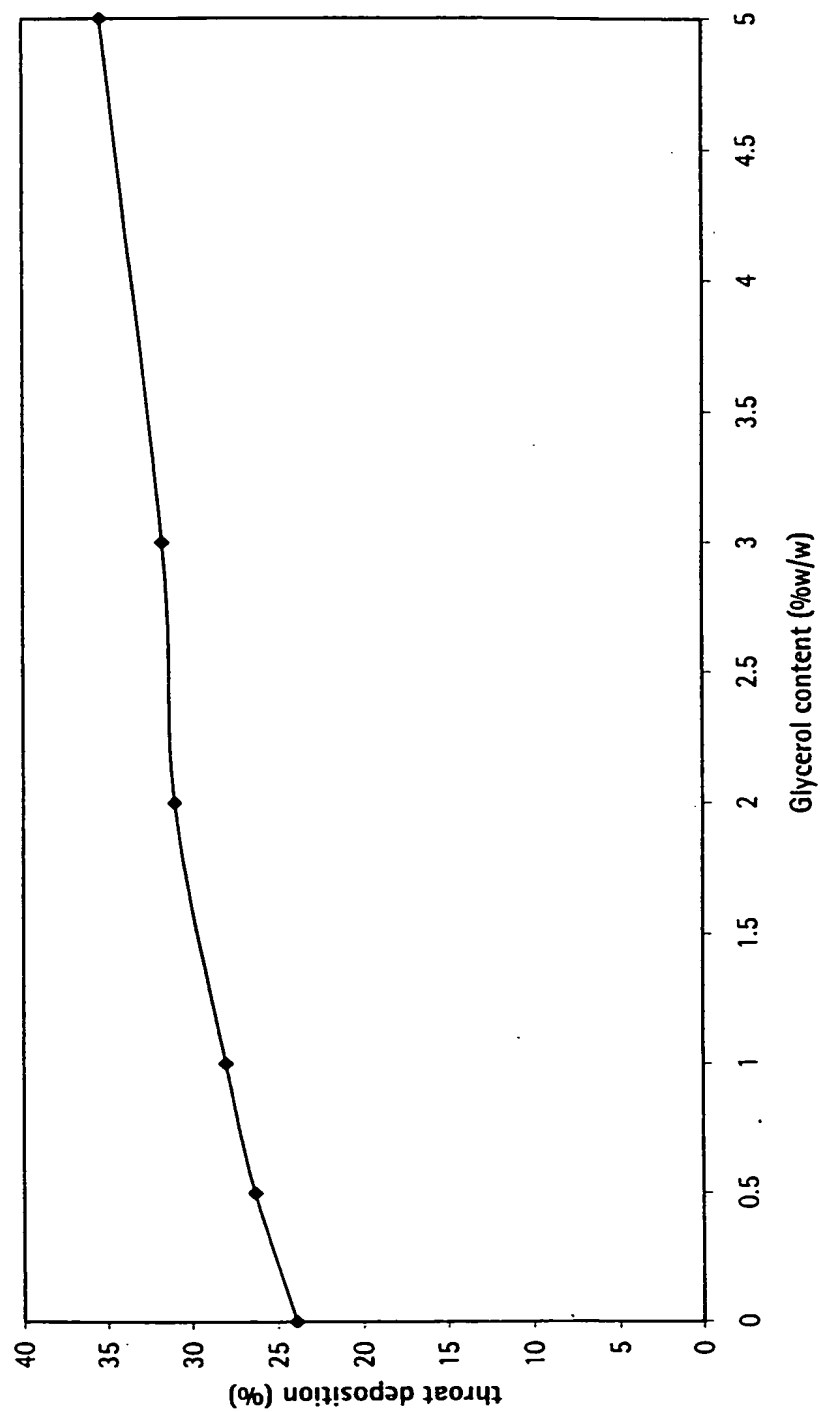
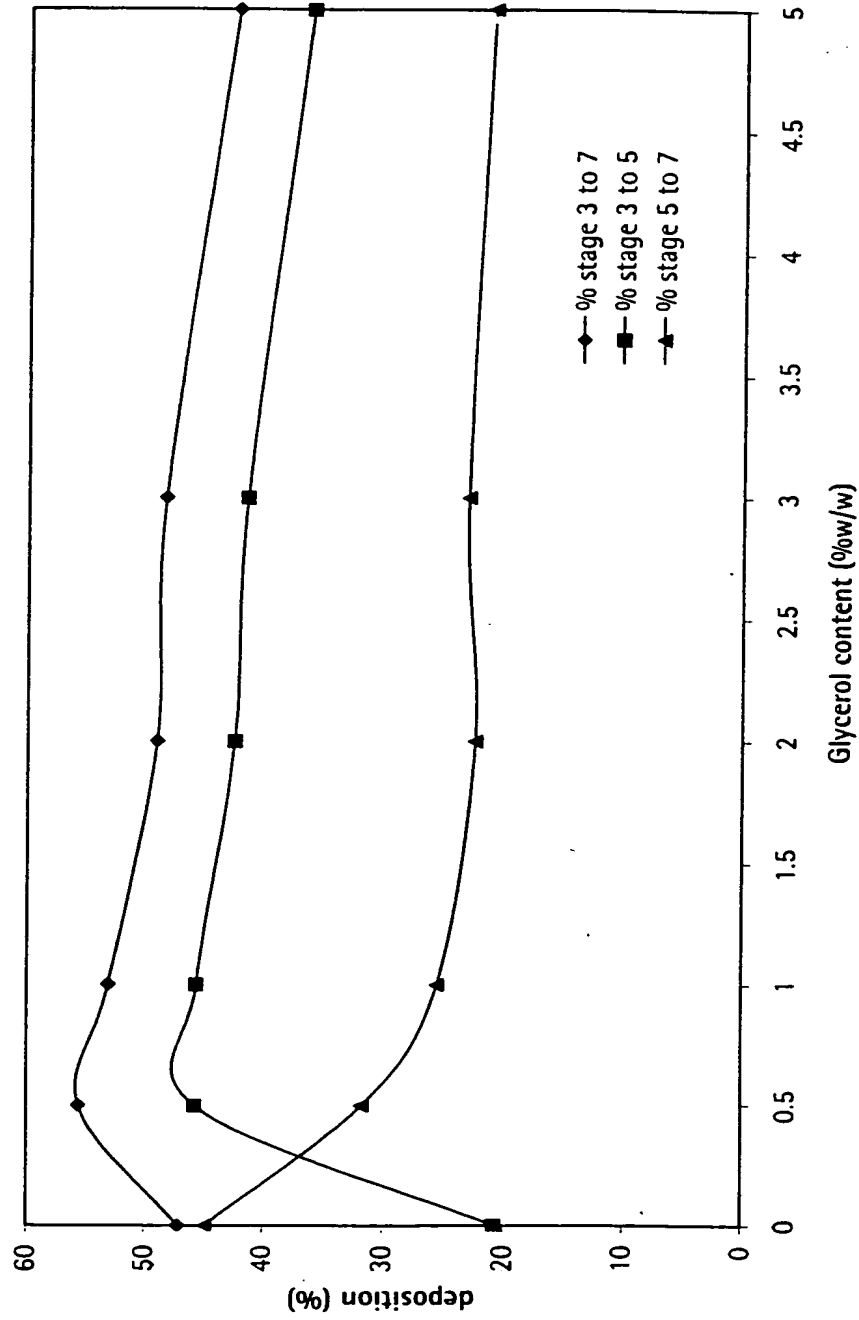


Figure 14

Effect of glycerol on stage 3-7 deposition for FP 50 $\mu$ g solutions in HFA 134a-ethanol  
(100 $\mu$ l valve, 0.22 x 0.65mm actuator)



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Figure 16

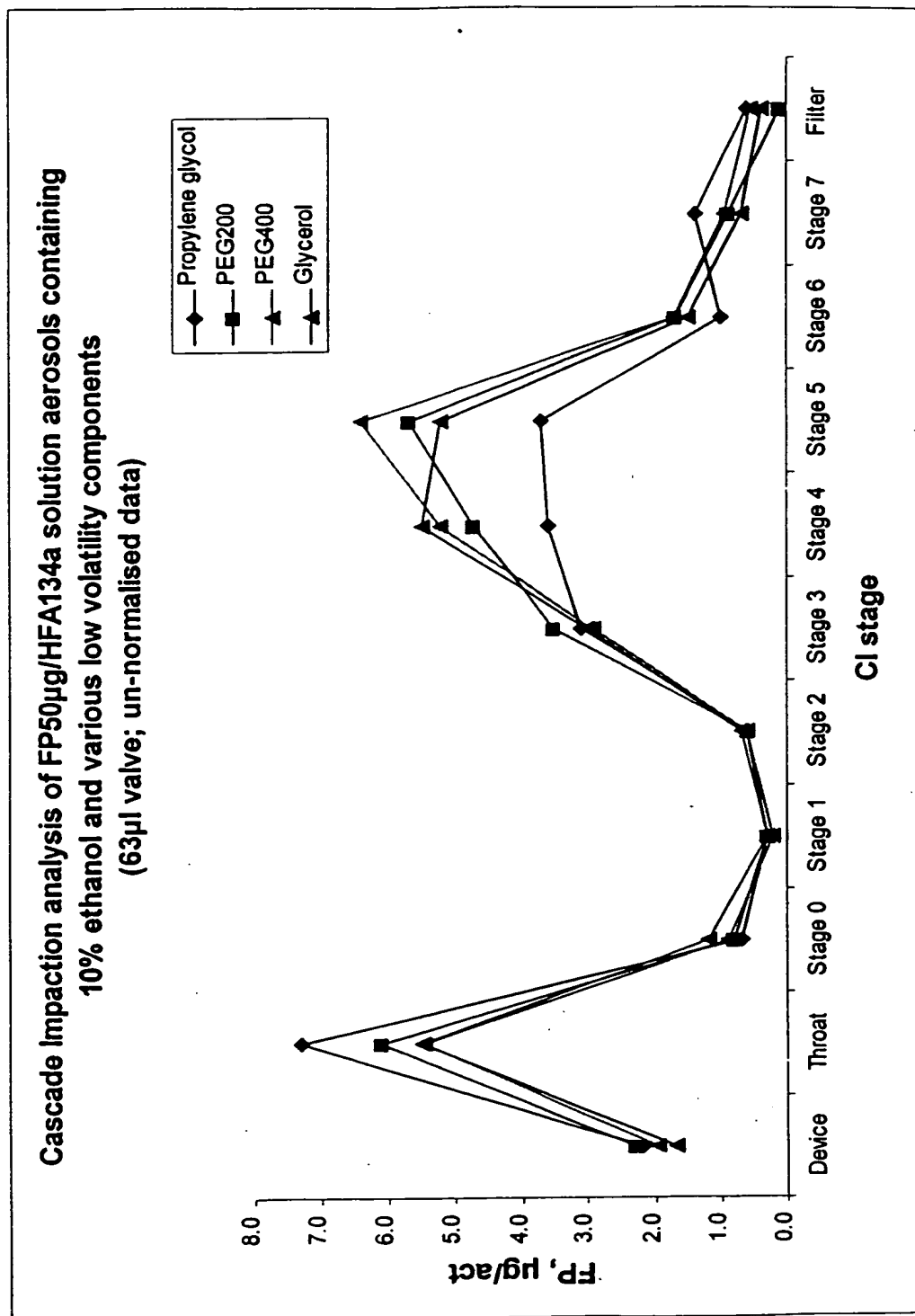




Figure 17

Cascade Impaction analysis of FP50µg solution aerosols in HFA227  
containing 18% ethanol with and without 1% glycerol and comparison with  
HFA134a aerosol  
(63µl valve; data normalised for 100µl valve)

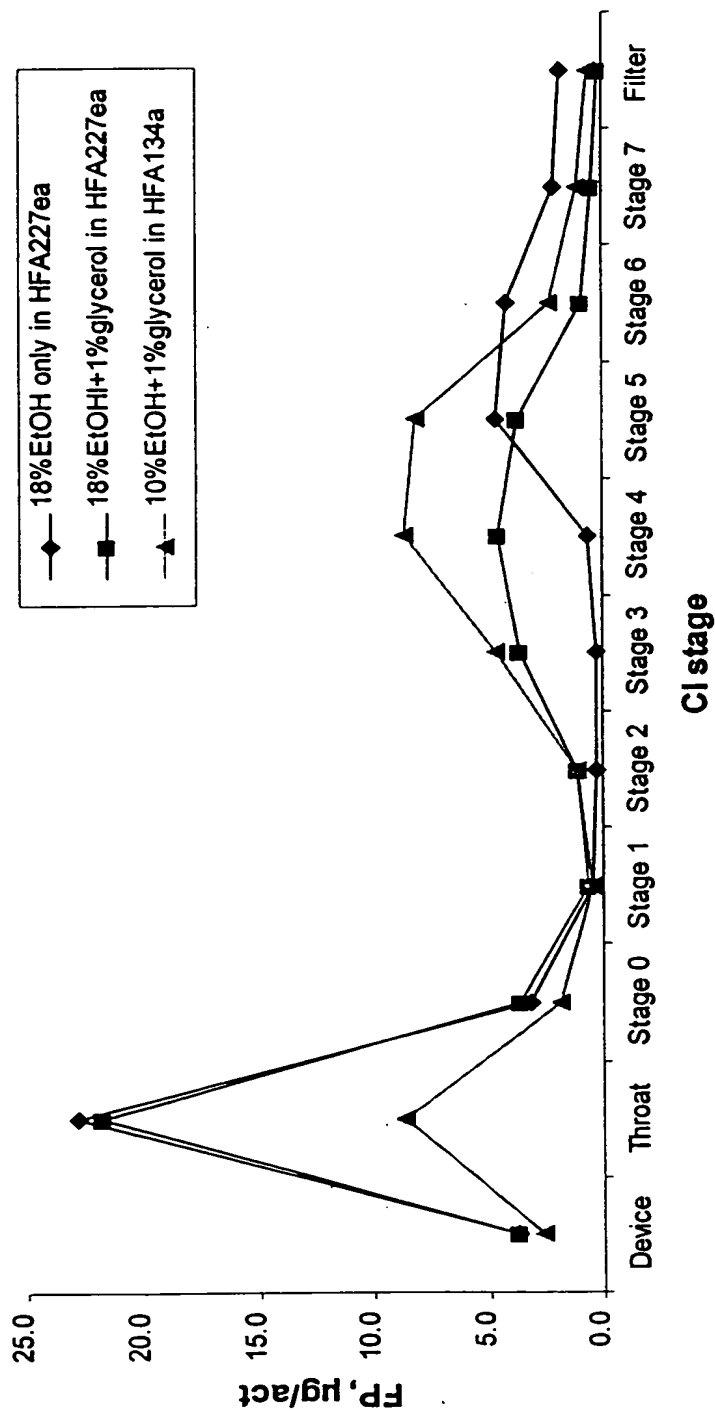


Figure 18

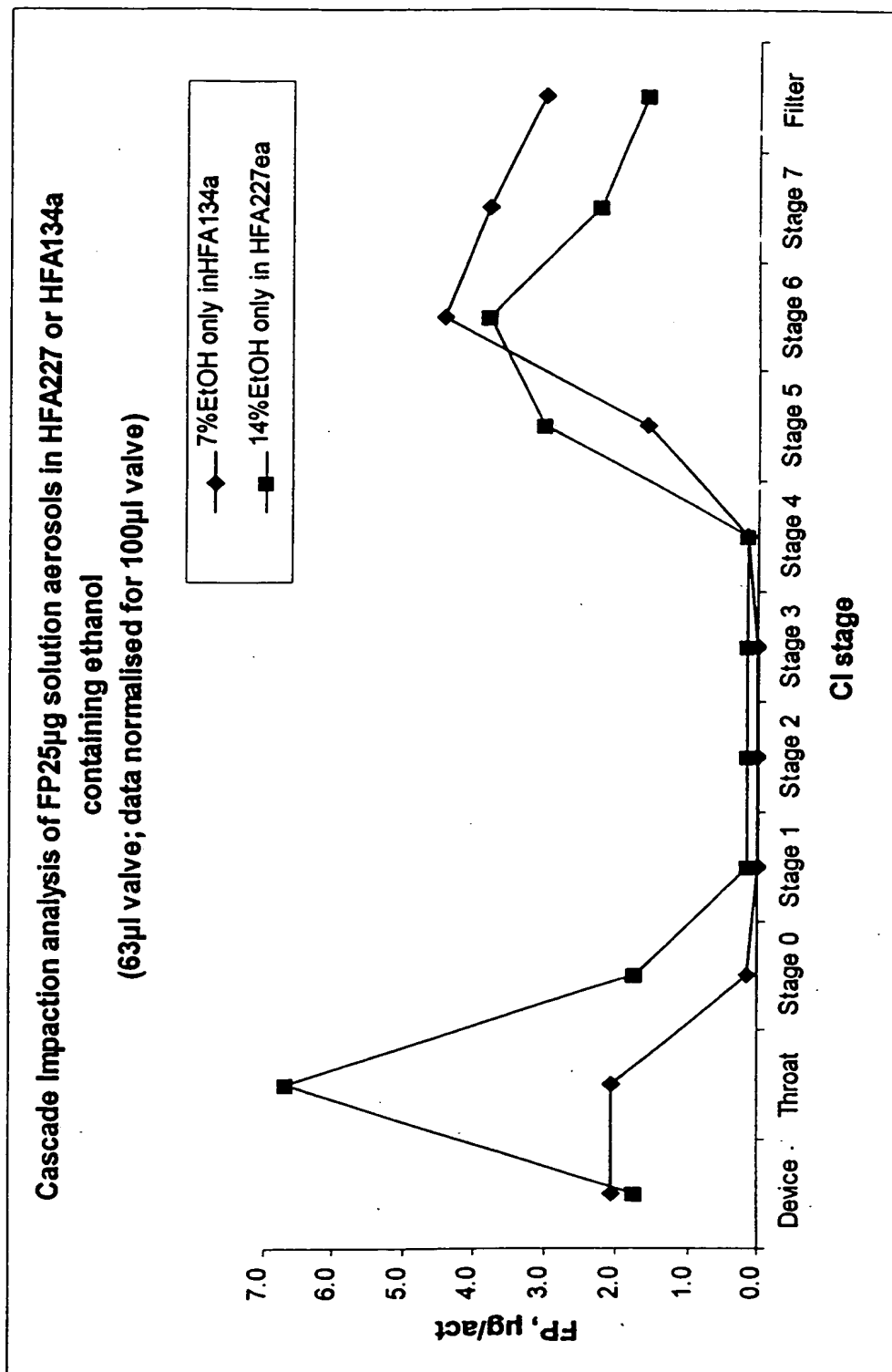


Figure 19

